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THE AIR CARRIER'S LIABILITY IN CASES OF UNKNOWN CAUSE OF DAMAGE IN INTERNATIONAL AIR LAW—PART I

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I.

INTRODUCTION

IN the law of compensation it is generally recognized that a causal relation must exist between the loss or damage for which compensation is sought and the act or omission of which complaint is made. If the person suffering damage cannot establish such relationship one of the main conditions for receiving compensation is unfulfilled.

In this study, however, the expression "cause of damage" has another causal relation in view. It concerns the chain of causation leading up to the phenomenon, for example an accident, which is the established cause of the damage. The expression refers, in other words, to the answer to be given to the question: *Why* did the phenomenon, causing the damage, occur? Similarly, "an unknown cause of damage" is a short expression for a situation which is characterized by lack of knowledge of the chain of events leading up to the phenomenon causing damage.

The legal relevance of such knowledge is dependent on the principle of liability to be applied in a given case. If, for example, the mere fact that damage has been caused by a certain activity entails the liability of a given person, it is of no significance for the imposing of liability to investigate the causes for which the activity did result in damage. Once the causal relation between the activity in question and the damage has been established the conditions for receiving compensation are fulfilled. On the other hand, elucidation of the circumstances around the phenomenon causing damage will be of primary importance if the liability is based on fault,¹ or presumption of fault. For in such cases the party upon whom the burden of proof is imposed will naturally try to explore and explain the chain of causation leading up to the alleged wrong in order to satisfy the requirements of his onus. The same is true, of course, if not the liability itself, but certain *other* legal effects, for example an aggravated form of liability, are

NOTE: Footnotes follow end of article on Pages 21 to 28.

conditioned upon the damage being caused by fault (or especially defined faults).

It will be seen that the problems concerning the unknown cause of damage are intimately connected with the question of the burden of proof and the allocation of such burden of proof. Different definitions and understandings have been attached to this onus in theory and in practice. However, it seems justified to state that the essential idea behind the burden of proof is a *risk* of the impossibility of furnishing sufficient evidence. The person upon whom the burden is imposed and who has not been able to furnish the required proof must bear the risk that his non-furnishing of evidence may have the effect that the court's evaluation of the facts of the case will be to his disadvantage. Also the principles of the allocation of the burden of proof have been a controversial subject and widely divided opinions have been expressed on this topic. If, however, the problem is approached with the view of letting the onus be an instrument to obtain the most practical and suitable results in the application of the law, the burden of proof is to be imposed upon the one who, on the average, has the facilities of securing proof of the relevant facts.² In this way evidence is secured in most cases and the number of unexplained cases will be kept to a minimum. Thus—as it has been said³—suitable rules of burden of proof are characterized by their ability to render themselves superfluous!

Although the unknown cause of damage is a problem which may occur in many different aspects of the law of compensation, it is, however, a characteristic feature of aviation. *Total losses* are more frequent in aviation than in most other kinds of activity, and it is particularly among such losses that the unexplained cases are to be found. Yet, to state with any certainty the ratio of the number of unknown cases to the total number of air accidents⁴ seems quite impossible, and different authors give differing percentages. In ICAO's⁵ Aircraft Accident Digest No. 9⁶ a table containing 53 reported accidents from 1957 states three of these to have been caused by undetermined reasons.⁷ But an examination of the reports included in the Digest reveals unknown elements to be found in at least fourteen of the reported cases. These figures are not very informative, however, considering that the reported cases form only part of the total number of known accidents occurring during 1957. But on one thing all concerned agree: the cases of unknown cause of damage constitute a sufficiently great part of the total number of cases in which damage occurs to create a problem of practical importance in air law. And the developments in aviation do not seem to change this state of things. While the technical progress, it is hoped, will continuously add to the safety of flight, the risk of unexplained cause of damage seems also to be growing. Speed is being increased, altitudes are becoming greater, and as a consequence of the extending cruising range the air services are operating over more and more inaccessible regions of the globe. But with each of these factors the possibilities of *total losses* are increasing, also.

"The unknown cause of damage" is an equivocal expression. It covers a long scale of different degrees of lack of knowledge of the chain of events leading up to the phenomenon causing damage. At one end of this scale cases of *completely* unknown cause of damage are to be found. A typical example is the case where an aircraft, having no radio contact with its surroundings, disappears into the ocean without survivors and without eye-witnesses. In such a situation all links of the chain of causation leading up to the disaster are unexplained; the only thing known is that the accident did occur. Further down the scale are cases in which some of the links may be known, while one or more others still remain unknown. It is established, for example, that after the pilot had chosen a certain altitude the aircraft encountered violent turbulences and heavy icing conditions which forced

it downwards until it finally crashed. All the manoeuvres of the aircraft from the moment it met bad weather conditions until its final crash may have been explained in detail, but it still remains unknown *why* the original altitude was chosen. Or it is known, for example, that a chain of established technical failures led to an explosion, but the causes of the failure starting this chain remain unexplained.

From this scale of cases comprising a higher or lesser degree of unknown elements it appears that even the borderline itself between unknown and known causes of damage is not sharp and definite. The transition is entirely gradual. And it is, of course, impossible to give any criterion for fixing the dividing line. Each individual case must be considered by the court through an overall assessment of all relevant evidence. In this connection it must be borne in mind that the establishment by technical experts of one or more causes of accident in their investigation reports are not binding on the court in its decision with regard to the legal consequences of the accident. The assessment of evidence must be the result of an independent legal evaluation.

SYSTEMATICS

The subject of this study is the air carrier's liability—contractual as well as delictual—in *international air law* in cases where the cause of damage remains completely or partially unknown. The purpose is, in other words, to give an answer to the question: What is the effect with respect to the air carrier's liability in international air law of the fact that damage has occurred for reasons unknown?

In the first place, the air carrier's liability towards passengers, or their dependents, and consignors of goods will be examined (section II). The relevant provisions are found in the Convention for the Unification of Certain Rules Relating to International Carriage by Air, signed at Warsaw, October 12, 1929, (the Warsaw Convention).⁸ A Protocol to amend the Convention was signed at The Hague, September 28, 1955,⁹ and one of the provisions therein contained will be considered in furtherance of the examination of the Warsaw Convention (p. 124 to 127).

Thereafter, the problems concerning the unknown cause of damage will be considered in respect of the liability for damage caused to third parties on the surface (section III). The international rules are to be found in the Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface, signed at Rome, October 7, 1952, (the Rome Convention).¹⁰ It will be seen that the question under consideration will raise only minor problems in connection with this Convention.

Finally, the unexplained cause of damage will be examined with regard to damage caused by aerial collisions (section IV). It is true that no international rules are in existence for the moment in respect of such damage, but a draft convention on aerial collisions has been drawn up,¹¹ and steps have been taken to speed up the efforts to reach an international agreement in this field as soon as possible.¹²

II.

THE UNKNOWN CAUSE OF DAMAGE AND THE WARSAW CONVENTION

A. *Scope of Application of the Convention*

The Warsaw Convention applies to certain, geographically restricted, cases of international carriage of persons, baggage and goods performed by an air transport undertaking, or by any person if the carriage is performed for reward. Excluded is, however, carriage performed under the terms of any international postal Convention, see Art. 2 paragraph 2.¹³ Also excluded

is carriage by air performed by way of experimental trial by air navigation undertakings with the view to the establishment of a regular line of air navigation, as well as carriage performed in extraordinary circumstances outside the normal scope of an air carrier's business, Art 34.¹⁴

International is, for the purposes of the Convention, any carriage in which, according to the agreement between the parties, the places of departure and destination are situated within the territory of two Contracting States, or within the territory of *one* Contracting State if there is an agreed stopping place within the territory of another State—be it or not a Contracting State, see Art. 1 paragraph 2.¹⁵ A carriage to be performed by several successive air carriers is deemed—as stated in paragraph 3 of Art. 1—to be one undivided carriage, if it has been regarded by the parties as a single operation, whether it had been agreed upon under the form of a single contract or a series of contracts, and it does not lose its international character merely because one contract or a series of contracts is to be performed entirely within a territory of the same Contracting State.

At The Hague Conference, 1955, the possibilities of extending the scope of application of the Convention were discussed.¹⁶ It was decided, however, to retain the present scope which is, above all, a function of the jurisdictional authority of the Convention.¹⁷ Any extension, according to which the Convention would govern carriage giving rise frequently to cases before the courts of non-contracting States, would create uncertainty in practice with respect to the applicability of the Convention.

Art. 1 paragraph 2 presupposes the existence of *an* agreement concerning the carriage. This agreement is the contract of carriage which is mentioned in several of the provisions of the Convention¹⁸ and which was also stressed in the preparatory works of the Convention as the basis for the application of the rules of the Convention.¹⁹ Consequently, carriage of a stowaway, for example, is governed not by the Warsaw Convention, but by national law.²⁰

More doubtful is the question whether the carriage of the employees of the carrier is covered by the Convention. Employees exercising their functions on board the aircraft seem not to cause any problem. Their relationship to the carrier will clearly fall outside the scope of the Convention. On the other hand, almost every one agrees that the Convention does cover carriage of an employee traveling with a free ticket for his own pleasure or business.²¹

Doubt may arise, however, in connection with the carriage of the employee whose travel with the carrier forms part of the performance of his duties for this carrier. The question seems not to have been submitted to the courts for decision. The majority of authors, however, holds the opinion that no contract of carriage exists in such cases and, accordingly, that the Convention will not apply.²² But views to the contrary have also been expressed.²³ A natural interpretation of the Warsaw Convention seems to lead to the conclusion that such cases are *not* covered by the Convention. The purpose of the Warsaw Convention is to regulate the relations between the carrier and the passengers or consignors as contracting parties to the agreement of carriage. As soon as a contract of employment exists between the parties, and the employee is traveling to exercise his duties under such a contract, an entirely new element has been introduced. There exists no necessity of applying the Convention in such cases, and it appears advisable not to do so. Such relationships seem not to need, nor to be suitable for, international regulations.

In connection with the requirements for the existence of a contract of carriage, attention must be drawn to the draft convention for the unification of certain rules relating to international carriage by air performed by a person other than the contracting carrier.²⁴ If carriage governed by the Warsaw Convention or any part of such carriage is performed by a person other than the contracting carrier, the rights and obligations of the per-

forming carrier shall, in respect of the carriage which he performs, be those of a carrier under the Warsaw Convention, see Art. III of the draft. In these cases the rules of the Warsaw Convention will be applicable between parties who have no contractual relationship to each other.²⁵—

Finally, the carriage must be *for reward* unless performed by an air transport undertaking, see Art. 1 paragraph 1 of the Convention. In the individual case it may be difficult to judge whether or not this requirement has been fulfilled. It seems natural to let the *commercial* aspect of the agreement concerning the carriage be the decisive factor.²⁶

B. *The Principles of Liability; Chapter III of the Convention*

The provisions concerning the carrier's liability are found in Chapter III. They are mandatory in the sense that any provision tending to relieve the carrier of his liability or to fix a lower limit than that which is laid down in the Convention shall be null and void, see Art. 23. As a further safeguard Art. 32 states that any clause contained in the contract of carriage and all special agreements entered into before the damage occurred by which the parties purport to depart from the rules laid down by the Convention, whether by deciding the law to be applied or by altering the rules as to jurisdiction shall also be null and void.

Another characteristic feature of the system of liability laid down by the Convention is the limitation of liability. To a certain degree this limitation may be considered as a counterpart of the mandatory character of the rules of liability.²⁷ Art. 22 limits the liability of the carrier to the sum of 125,000 Poincaré francs²⁸ (about 8,300 U.S. dollars) towards each passenger, 250 Poincaré francs (about 16.60 U.S. dollars) per kilogram with respect to registered baggage and to goods, and 5,000 Poincaré francs (about 332 U.S. dollars) per passenger with regard to objects of which the passenger takes charge himself. These limits of liability cannot be invoked by the carrier, however, if it is proved that he or his agents have caused the damage by wilful misconduct ("dol") or such fault on their part as, in accordance with the law of the courts seized of the case, is considered to be equivalent to wilful misconduct.²⁹

According to Art. 17, 18 and 19 the carrier is liable for damage sustained in the event of the death or injury of a passenger, or destruction or loss of, or of damage to baggage or goods, or for damage occasioned by delay in the carriage by air. In Art. 17 and 18 special (and different) periods are indicated to delimit the concept of "air carriage" within which the accident or occurrence causing the damage must have taken place in order to entail the carrier's liability. It will be seen that while liability pursuant to Art. 17 for death or injury of a passenger is conditioned upon the taking place of an *accident*, such condition is not to be found in respect of liability for damage to or loss of goods in Art. 18 (cf. the words: "the *occurrence* which caused the damage"³⁰).

These provisions of liability must, however, be read in connection with Art. 20 of the Convention which runs as follows:

"(1) The carrier is not liable if he proves that he and his agents have taken all necessary measures to avoid the damage or that it was impossible for him and them to take such measures.

(2) In the carriage of goods and luggage the carrier is not liable if he proves that the damage was occasioned by negligent pilotage or negligence in the steering of the aircraft or in navigation and that, in all other respects, he and his agents have taken all necessary measures to avoid the damage."

Thus it appears that the principle of liability laid down by the Convention is to the effect that the carrier is liable unless *he proves* that he and his servants or agents³¹ have taken all necessary measures to avoid the

damage or that it was impossible for him and them to take such measures. In addition, as far as carriage of goods and baggage is concerned, the carrier is not to be held liable for the so-called nautic faults committed by his servants or agents. The problem to be examined is, accordingly, whether the carrier is able to furnish the required proof pursuant to Art. 20 paragraph 1 and 2 respectively and thus relieve himself of liability in cases where the chain of causation leading up to the phenomenon causing damage—i.e. the accident or an occurrence taking place during the carriage by air—remains unknown. With respect to liability for damage contemplated by Art. 17, it is presupposed that a causal relation between the accident and the damage has been established. With regard to Art. 18 paragraph 1 the existence of a causal relation between an occurrence taking place during the carriage by air as defined in Art. 18 paragraph 2 and the damage is presupposed to have been proved. If Art. 18 implies a causal relationship between the carriage by air and this occurrence *the carrier* must bear the burden of proof that such a relationship does not exist.³²

After that it remains to be asked whether, still in cases of unexplained cause of damage, the carrier may be held liable in excess of the limitations of liability contained in Art. 22 of the Convention on the grounds that damage has been caused by wilful misconduct, see Art. 25 paragraph 1.

C. Article 20 Paragraph 1

The examination of Art. 20 paragraph 1 raises two main questions. In the first place, the meaning of the expression "*all necessary measures*" must be studied. This is a problem in connection with the interpretation of the provision in general. Secondly, *the requirements to satisfy the carrier's burden of proof* pursuant to Art. 20 paragraph 1 will be examined. This is a question in close relationship to the problems concerning the unknown cause of damage. It must be borne in mind, however, that the two questions will usually be intimately related in practice. The questions of *what* to prove and *how* to prove it will generally be answered collectively by the court on the basis of an overall evaluation.

On the other hand, for analytical reasons, it seems preferable to treat independently of the other questions involved, certain difficulties of interpretation attached to the words "all necessary measures."

1. "ALL NECESSARY MEASURES"

If understood in their literal sense the words of Art. 20 paragraph 1 should not leave much substance to the Article. If all necessary measures had been taken to avoid the damage no damage would occur at all. The article would then be restricted to apply to cases where it was impossible for the carrier and his servants or agents to take such measures, i.e. in cases amounting to *force majeure*. It is indubitable, however, that an interpretation according to which Art. 20 paragraph 1 is reduced to comprise *force majeure* cases only, is contrary to the purposes behind Art. 20 and thus behind the entire system of liability of the Convention of which Art. 20 is the very keystone. An examination of the genesis of the present wording of Art. 20 will reveal what the draftsmen of the Convention had in mind when framing its provisions of liability.

a. Preparatory Works

The rudiments of the present Art. 20 are to be found in the draft convention drawn up by the First International Conference on Private Air Law, held in Paris, October 27 to November 6, 1925.³³ Art. 5 paragraph 1 of the draft held the carrier liable for accidents, losses, damages and delays, but in paragraph 2 it was added that the carrier was not liable if he proved to have taken "reasonable measures" ("*les mesures raisonnables*") to avoid

the damage. Art. 6 made the carrier liable also for the faults committed by his servants or agents.³⁴

In his report to the Conference, dated November 2, 1925, M. Pittard, Rapporteur, explained the system of liability as laid down in the draft convention³⁵ and stated in this connection *inter alia*:

"La Commission s'est demandée quel régime de responsabilité il fallait adopter: risque ou faute. L'opinion générale est que . . . il faut admettre la théorie de la faute.

Il est donc juste de ne pas imposer au transporteur une responsabilité absolue et de le dégager de toute responsabilité lorsqu'il a pris les mesures raisonnables et normales pour éviter le dommage; c'est la diligence que l'on peut exiger du bon père de famille.

. . . il n'y a pas de responsabilité sans faute, celle-ci étant presumée jusqu'à preuve rapportée de la diligence raisonnable."³⁶

From these remarks it appears clearly that the liability of the carrier was to be based on *fault*. The carrier was exonerated from liability on the proof that neither he nor his servants or agents have committed any faults, i.e. that they have acted with due diligence or the diligence of a *bonus pater familias*. And this—most well-known—idea of liability found expression in the words that the carrier is not liable "if he proves that he (and his servants or agents) have taken *reasonable measures* to avoid the damage."

Although not stated directly in the report, there can be no doubt that the expression "les mesures raisonnables" has been inspired by the Anglo-Saxon idea of "due diligence."³⁷ Moreover, it was not the first time that this notion had gained a footing in a French legal text. In the "International Convention for Unification of Certain Rules relating to Bills of Lading," signed at Brussels August 25, 1924, the idea of due diligence has been introduced through the expression "diligence raisonnable" (see Art. 3 paragraph 1 and Art. 4 paragraph 1 of the Convention).³⁸ And it will be seen that the very same phrase was used by the rapporteur in explaining the meaning of the expression "les mesures raisonnables" in the Paris draft.³⁹

The words "les mesures raisonnables" were retained in the various draft conventions worked out by CITEJA⁴⁰ in the years following the Paris Conference 1925, and they appeared also in the draft submitted to the Warsaw Conference in October 1929 (see Art. 22 of the draft).⁴¹ In his explanation to the Conference of the provisions of liability contained in the draft convention, the Rapporteur, M. de Vos, repeated in all essentials the observations made by M. Pittard in his report of 1925.⁴²

The Soviet Union, however, had submitted to the Conference a proposal of amendment to the effect that the words "toutes les mesures nécessaires" be substituted for the expression "les mesures raisonnables."⁴³ This proposal was classified by the preparatory commission—in which also a Russian delegate had a seat⁴⁴—as a "question de rédaction."⁴⁵ Accordingly, it was not touched upon during the extensive discussions concerning the principles of liability ("questions de fond de première importance"), nor during the examination of "les questions de fond de deuxième importance."⁴⁶ At the third and last reading of the draft convention the words "les mesures raisonnables" were still to be found in the new Art. 20 (former Art. 22).⁴⁷ At that time the Russian delegate pointed out that it had been decided—presumably in the drafting committee—to insert the expression "toutes les mesures nécessaires" in substitution for "les mesures raisonnables." The acting Rapporteur agreed, and no other comments being made, the Article was adopted in the proposed form.⁴⁸

Thus it appears unquestionable that the replacement of the words "les mesures raisonnables" with "toutes les mesures nécessaires" at the Warsaw Conference was a drafting matter only. Although the U.S.S.R. was generally in favor of making the air carrier's liability more stringent,⁴⁹ there can be

no doubt that the amendment did not intend to touch upon the substance of the system of liability—and was not understood by the Conference to do so, either. The little attention paid to it bear witness thereof. In other words: The interpretation of the expression “toutes les mesures nécessaires” must be made in close conformity with the idea behind “les mesures raisonnables” as described in M. Pittard’s report of 1925. This is the only conclusion to be drawn from the genesis of the present Art. 20.

b. National Implementation Acts

The various national Acts implementing the Warsaw Convention contain in general either the same expressions as Art. 20 or a verbatim translation thereof. In some cases, however, it is possible to find expressions in these Acts indicating, to a certain degree, the legislator’s understanding of the words “all necessary measures.” Thus the *Danish*, the *Norwegian*, the *Swedish* and the *Finnish* implementation Acts are all referring to the notion of *fault* instead of “all necessary measures” (the carrier is not liable if the damage has not been caused by fault).⁵⁰ The *German* text of the Warsaw Convention makes use of the expression “erforderlichen Massnahmen” and not “notwendigen Massnahmen” which would have been the direct translation of the original text.⁵¹ These examples illustrate the difficulties of the various legislators in transforming the original expression into workable legal terms in the various languages; in all of them an attempt has been made to avoid the objective elements which a literal understanding of the word “necessary” involves.⁵²

c. Revision Works

A relatively short time after the coming into force of the Warsaw Convention the question of its revision arose, and Art. 20 was numbered among the Articles requiring amendments. The expression “all necessary measures” had created difficulties and uncertainty when applied in practice and different interpretations had been advanced. Therefore, efforts were made to substitute the words with another expression less susceptible to divergent interpretations. “Les mesures raisonnables,”⁵³ “toutes mesures utiles et normales,”⁵⁴ “all proper measures,”⁵⁵ “all prudent measures,”⁵⁶ “all possible and foreseeable measures,”⁵⁷ “appropriate measures,”⁵⁸ “all necessary and possible measures”⁵⁹ were among the terms suggested in the different phases of the revision work on the Convention.⁶⁰ And all of them were intended to express the principle which formed the basis of the system of liability laid down by the Warsaw Convention: the duty to show due diligence—or to act as a *bonus pater familias*.

Art. 20 was *not* changed, however, at The Hague Conference in 1955. The Article was discussed at some length,⁶¹ especially in connection with a Dutch-Norwegian-Australian proposal of amendment which substituted the word “negligence” for the expression “all necessary measures” (the carrier not to be liable if the damage was not caused by negligence).⁶² The discussions showed that the vast majority of the delegates considered Art. 20 paragraph 1 to indicate a liability based on the principle of fault.⁶³ But a tendency towards a more stringent interpretation of the words “all necessary measures” was found, also. Thus the delegate of The Federal Republic of Germany, while commenting on the above-mentioned proposal, stated *inter alia* that

“... the existing text (of Art. 20 paragraph 1) required all necessary measures to be taken, while the Netherlands Delegation only wished to accept liability in the case where there was fault on the part of the pilot or carrier. But, one could very well say objectively: such and such measures would have been necessary, but the pilot could not be blamed for not having taken these measures, because it was necessary for him to reach a quick decision and he did not have sufficient time to comply with these

measures. Consequently, there would be no fault on the part of the pilot, although (objectively, it would have been possible for him to have taken the measures if he had understood the situation right away."⁶⁴

It will be seen that an interpretation along these lines is not in conformity with the intentions of the draftsmen of the Convention (see *supra* p. 6-8).

Also the United States delegate feared that the proposal including the introduction of the notion of negligence could be held to have attenuated the carrier's liability pursuant to the present Art. 20 paragraph 1.⁶⁵

Although many of the delegates seemed to consider the words "all necessary measures" a not very satisfactory expression of the underlying principle of liability of Art. 20, the present text was retained, apparently for lack of any better wording. Furthermore, the question of the requirements to satisfy the carrier's burden of proof was discussed simultaneously with this problem which complicated the issue considerably.

d. Authors

Also, the overwhelming majority of the authors has construed "all necessary measures" as including a requirement for the exercising of due diligence—or the diligence of a *bonus pater familias*, see for example *Ripert*,⁶⁶ *Coquoz*,⁶⁷ *Giannini*,⁶⁸ *Ambrosini*,⁶⁹ *Lemoine*,⁷⁰ *Riese*,⁷¹ *Beaumont*,⁷² *Picard*,⁷³ *Chauveau*,⁷⁴ *Litvine*,⁷⁵ *Salinas*,⁷⁶ *Schweickhardt*,⁷⁷ and *Perucchi*.⁷⁸ The same view has also been expressed by stating that "all necessary measures" are equivalent to "reasonable measures," see *Goedhuis*,⁷⁹ *Shawcross and Beaumont*,⁸⁰ and *McNair*,⁸¹ or that the carrier is not liable when no fault has been committed, *Ripert*,⁸² *Maschino*,⁸³ *Sack*,⁸⁴ *Lupton*,⁸⁵ *Schleicher-Reymann*⁸⁶ and *Knauth*.⁸⁷

Moller says that "in effect the carrier in regard to passengers will be liable for little more than negligence if he has taken reasonable measures to provide for the safety of the person carried."⁸⁸ It does not appear quite clear what the meaning is behind this statement.

Koffka-Bodenstein-Koffka seems to hold an opinion differing from that of the majority by stating that "the carrier must . . . prove . . . that all measures objectively required for the avoidance of the damage have been taken."⁸⁹ According to such an interpretation the diligence to be exercised is not only that of a *bonus pater familias*, but that of a *vir optimus*.⁹⁰

Finally, *Astle* writes that the substitution of the word "reasonable" for "necessary" in the United Kingdom Order of Council 1952 is an alteration concerning "the onus of proof upon the carrier in order to gain immunity for loss or damage occasioned to cargo."⁹¹ This seems to indicate a distinction of substance between the words in question.

e. Court Decisions

The courts of several countries have been faced with the problem of interpretation of the words "all necessary measures." The question was examined extensively in the Italian case *Palleroni vs. S.A. di Navigazione Aeria*, Corte di Cassazione, March 31, 1938.⁹² Fire breaking out in a hydroplane during its landing on the sea, forced all the passengers to plunge into the water whereby one of them perished. The next of kin sought compensation from the Air Company and the question arose whether "all necessary measures" to avoid the damage had been taken or had been impossible to take. The lower court, having examined the preparatory works of Art. 20 paragraph 1, had made a distinction between "the reasonable measures" and "all necessary measures" to the effect that the former expression indicated a more subjective standard of care than the latter which must be considered more objective and universal in its requirements to the carrier.

Corte di Cassazione, however, rejected these considerations. The Court stated that the system of liability contained in the text was the following:

"Presumption of liability against the carrier; recognition of exemption from liability even in cases other than those of *force majeure* and *cas fortuit*; the proof exempting the carrier . . . consisting in showing that he and his servants or agents have taken the necessary measures to avoid the accident. The presumption of liability . . . should flow from the omission of the diligence expected of an ordinary man, that is, of *bonus pater familias*, for the following reasons: (a) the diligence of the ordinary man is the rule which governs, in principle, the fulfilments of all contracts . . . (b) the text contains no allusion or reference to diligence of a different degree . . . Consequently, when it is necessary to establish concretely whether the carrier has taken the necessary measures to avoid the accident, the nature of the measures required and the necessity of such nature for the object sought by the law must be determined in relation to the measures which the normal and well-regulated carrier would have adopted and to the necessity which such carrier would have seen. One cannot go any further."

It will be seen that the judgment describes the required standard of care in accordance with the principles advanced in Pittard's report of 1925.⁹³—

The difficulties of interpretation of the words "all necessary measures" are well illustrated by a comparison of the following two cases. In the French case *Csillag vs. Air France*, Tribunal civil de Toulouse, February 10, 1938, it was stated that

" . . . in order to exonerate himself the carrier has not to prove that he and his servants or agents have committed no faults, it being sufficient for him to show—as said the delegate M. Pittard⁹⁴—that he has exercised the diligence of a *bonus pater familias* and has taken all the reasonable and normal measures to avoid the damage . . ."⁹⁵

However, in a judgment given by Tribunale di Tripoli, August 14, 1937, in the case *Primatesta vs. Ala Littoria*,⁹⁶ the Court stated that the carrier had to prove not only that no fault was committed but also that he and his servants or agents had taken all necessary measures or that it had been impossible for them to take such measures.⁹⁷

While the French Court apparently held the proof that all necessary measures have been taken to be a less burdensome proof than that which shows that no fault has been committed, the opposite seems to be true as far as the judgment from Tripoli is concerned. Bearing in mind the intention of the draftsmen of Art. 20—according to which the liability was to be based on fault—one will see that both decisions fail to hit the meaning of the original idea behind the Article.—

In the English case *Grein vs. Imperial Airways Ltd.*, King's Bench Division, October 23, 1935, Court of Appeal, July 13, 1936,⁹⁸ the meaning of "all necessary measures" was also discussed, and in this regard Green L. J. stated:

" . . . the carrier . . . is not to be liable if he proves that by his agents or servants he exercised all reasonable skill and care in taking all necessary measures to avoid causing damage by accident to the passenger or proves that it was impossible to take such measures. This seems to me to amount to a promise not to injure the passenger by avoidable accident, the onus being on the carrier to prove that the accident could not have been avoided by exercise of reasonable care . . ."⁹⁹

In the American case *Ritts vs. American Overseas Airlines*, United States District Court, Southern District of New York, January 17-18, 1949,¹⁰⁰ the judge instructed the jury that "a very high degree of care is required of an air carrier to protect its passengers from injury and death." And later the jury was asked: "Has the defendant (the carrier) proved . . . that the defendant and its agents took all reasonable and necessary measures to avoid the damage?"

Another case in which the problem was examined is *American Smelting and Refining Company vs. Philippine Airlines Inc.*, United States, Supreme Court of New York County, June 21, 1954,¹⁰¹ where it was stated:

"The proof adduced upon the trial conclusively establishes that defendant took all possible precautions to insure the safety of the flight and to avoid the crash of its aircraft."

In the case *Pierre vs. Eastern Air Lines et al.*, United States District Court, District of New Jersey, January 27, 1957,¹⁰² the Court stated that the carrier must pay unless it can prove "that it and its servants were free from all fault."

It appears that the Courts in the above quoted cases have found themselves obliged to paraphrase the expression "all necessary measures" when applying Art. 20, and most of them have used terms which are revolving around the idea of fault; to the contrary, however, is the case from Tripoli. In the French case from Toulouse a distinction has been made, it is true, between proof of the diligence of a *bonus pater familias* and proof of absence of fault. But the real problem behind this distinction is the one concerning the requirements to satisfy the carrier's burden of proof.¹⁰³

Summarizing the examination of the meaning of the expression of Art. 20 paragraph 1 that the carrier must prove that he and his servants or agents "have taken all necessary measures to avoid the damage or that it was impossible for him and them to take such measures," the following can be stated: The intention behind the original wording including the expression "the reasonable measures" was to introduce the principle that the carrier, his servants or agents, have to show due diligence—to act with the care of a *bonus pater familias*. In other words, the liability was based on fault. At the Warsaw Conference the expression was changed to "all necessary measures," but the principle behind the terminology remained unchanged. During the revision work on the Convention almost all statement gave expression to a meaning of these words in conformity with the original idea behind them. Also certain national Acts which have paraphrased Art. 20 paragraph 1 when implementing the Convention, have expressed themselves along these lines. An overwhelming majority of authors has held the same views, and the courts of several countries have approved this interpretation.

2. THE REQUIREMENTS TO SATISFY THE BURDEN OF PROOF IMPOSED UPON THE CARRIER IN ARTICLE 20 PARAGRAPH 1

The consensus of opinion which, on the whole, is prevailing among the courts and writers of different countries concerning the interpretation of Art. 20 paragraph 1 with regard to the expression "all necessary measures," comes to an abrupt end, however, as soon as the question turns upon *the requirements to satisfy the carrier's burden of proof* that all necessary measures have been taken or were impossible to take. That is the reason why the discussions concerning Art. 20 paragraph 1, while taking their starting point in the incertitude of interpretation of the words "all necessary measures," usually have merged into a debate about the requirements to satisfy the onus of the carrier.¹⁰⁴ This is the main problem with respect to the interpretation of Art. 20 paragraph 1, and it stands out, above all, in cases of unknown cause of damage. For the more the factual circumstances are unexplained, the more significant is the rôle played by the burden of proof. No wonder then that these cases have been *les enfants terribles* in the interpretation of Art. 20 paragraph 1.

The problem and the different approaches to its solution will be better illustrated, it is believed, by outlining the views and arguments put forward by various authors dealing with this question. The vast majority of authors groups itself around certain chief points of view which will be expounded

below. After that, the preparatory works of the Warsaw Convention with respect to the present Art. 20 paragraph 1 will be studied—the more so as these works have often played a decisive rôle in the attitude of the courts and authors to the problem. In that connection the revision works on the Convention and the discussions during The Hague Conference 1955 will also be studied. Finally, the court decisions will be examined.

a. Authors

A number of authors has advocated a so-called *liberal* interpretation of Art. 20 paragraph 1 in respect of the requirements for the fulfilment of the carrier's burden of proof. As an exponent for this approach *Lemoine*¹⁰⁵ may be mentioned. According to this author the carrier has to furnish proof to the effect that he and his servants or agents have exercised due diligence in the execution of their duties, but this proof has to be furnished only within the possibilities allowed by the circumstances of the case in question. It does not rest unconditionally with the carrier to explain the cause of damage or to trace the entire chain of events leading up to the damage in order to show that all necessary measures have been taken up to the very last moment. Only to the extent to which the circumstances permit him to do so, the carrier has to furnish such proof. Otherwise, it will be sufficient for him to furnish a more *general* proof of the due diligence of his crew. In that case he will have to prove that all required measures aiming at a safe flight have been taken, for example *that* the aircraft in question was airworthy; *that* all state regulations concerning the exploitation of the aircraft have been observed strictly; *that* the aircraft has been kept in good order and has been carefully overhauled; *that* at the moment of departure the aircraft was carrying sufficient fuel and oil; *that* the crew was well equipped and possessed the necessary licenses; *that* the departure did not take place under weather conditions in which a prudent carrier would have postponed the departure.

Support for this interpretation of Art. 20 paragraph 1 is, above all, derived from the preparatory works of the Convention, and in this respect *Lemoine* cites the following passage from *Pittard's* report of 1925:¹⁰⁶

"Que peut-on exiger du transport aérien? Une organisation normale de son exploitation, un choix judicieux de son personnel, une surveillance constante de ses agents et préposés, un contrôle sérieux de ses appareils accessoires et des matières employées."¹⁰⁷

This text does not impose upon the carrier—the author states—the obligation of explaining the origin of the accident in order to show that no fault has been committed in connection with every event leading up to the accident. In particular, the text does not require the carrier to trace all the acts of the crew in order to prove that nothing wrong has been done, and that everything that could be required according to the circumstances has been carried out. A requirement to that effect would mean that the carrier had to reconstruct the accident in order to analyze every phase. In general it is impossible, however, to furnish the negative proof of non-existence of fault. Accordingly, a liberal interpretation has to be adopted—that is the only one compatible with the above cited report.¹⁰⁸

An understanding of Art. 20 paragraph 1 along these lines has been held by several authors, thus *Müller*,¹⁰⁹ *Giannini*,¹¹⁰ *Lacombe*,¹¹¹ *Picard*,¹¹² *Lefebvre d'Ovidio* and *Pescatore*,¹¹³ *Chauveau*,¹¹⁴ *Lena Paz*,¹¹⁵ *Rabut*,¹¹⁶ and *Litvine*.¹¹⁷

In an examination of the draft convention drawn up in Paris 1925—which relieved the carrier of liability in the cases of nautic faults of his servants or agents in respect of passengers also—*Ripert*¹¹⁸ has stated that the carrier was able to avoid liability even if the origin of damage be unknown. If the carrier showed that no faults have been committed *before*

the departure and that the crew was qualified and duly licensed, nothing further was required.¹¹⁹

A few years after the Warsaw Conference, however, Ripert confines himself to point out that behind the liability provisions of the Convention the Anglo-Saxon idea of due diligence is to be found.¹²⁰ The carrier has to show that he has committed no fault, and in England this question is left to the estimation of the court. Ripert seems to hold a *general* proof sufficient in this respect, but does not mention either the responsibility for servants or agents or the case of unknown cause of damage.¹²¹

*Goedhuis*¹²² has put forward an interpretation of Art. 20 in which, it is true, he takes his starting point quite opposite to Lemoine, but the result of which in practice will be close to that of the liberal interpretation. Originally—*Goedhuis* says—the intention behind the liability provisions of the Convention with regard to servants or agents was to hold the carrier liable on the basis of “faute de surveillance” only, and not in general for faults committed by his employees.¹²³ This opinion is based on Pittard’s report of 1925, and once more the passage commencing with the words “Que peut-on exiger . . .” is quoted.¹²⁴ At a later stage, however, the carrier’s liability was made more stringent, the carrier now being held liable towards passengers in cases of nautic faults on the part of his servants or agents.¹²⁵ Accordingly, pursuant to the present Art. 20 the carrier has to prove that both he and his servants or agents have taken all the necessary measures to avoid the damage. And the author continues:

“But if the cause is unknown what proof has to be given then by the carrier? As a direct proof is impossible, the carrier must be allowed to prove by presumption that his agents took the necessary measures.¹²⁶ If the carrier shows that the crew held the necessary certificates, he must be relieved from his liability unless the plaintiff rebuts the presumption by evidence to the contrary. The Court when applying the rules of the Warsaw Convention should bear in mind that the fundamental idea of Art. 20 is to relieve the carrier of his liability when he has committed no fault.

The fact of imposing upon the carrier the burden of proving affirmatively that his agents took the necessary measures, would mean imposing an absolute liability upon him in cases where the cause of the accident remains unknown . . . (But) the authors of the Convention unanimously rejected a liability of the air carrier based on the theory of risk.”¹²⁷

This opinion has also been shared by a substantial number of authors, for example *Ambrosini*,¹²⁸ *Marino*,¹²⁹ (perhaps) *Coquoz*,¹³⁰ *van Houtte*,¹³¹ (perhaps) *Gay de Montella*,¹³² *Sandoval*,¹³³ *Salinas*¹³⁴ and *Tapia*.¹³⁵

*Schweickhardt*¹³⁶ holds an opinion which seems to lead to a somewhat similar result. He states that the carrier has to prove that due diligence was exercised in connection with all the specific circumstances of the accident to which knowledge can be obtained. This interpretation takes into consideration the fact that air accidents are often inexplicable and, accordingly, no strict proof ought to be required either with regard to the cause of accident or as far as the exercising of due care is concerned. In such cases it must be sufficient to furnish the exonerating proof by means of the establishment of a probability based upon the normal development of the events of accidents.

A more restrictive tendency in the interpretation of the requirements to satisfy the carrier’s burden of proof has been expressed by *Riese*:¹³⁷ In cases of unknown cause of accident the carrier has the possibility of proving that he himself and his servants or agents on the ground have taken all necessary measures to avoid the damage. But how can he show that *the crew* has exercised due diligence—especially if all persons on board the aircraft have perished in the accident? In such a case no presumption exists either for negligence or for non-negligence on the part of the crew, and it is inconsistent with the allocation of the burden of proof in Art. 20 to put

forward a presumption to the effect that a duly licensed and qualified crew has taken all necessary measures. Nor can the view held by Lemoine, according to which a *general* proof of due diligence on the part of the crew is considered sufficient in cases of unknown cause of damage, be accepted. That would be an evasion of the burden of proof imposed upon the carrier. Riese admits, however, that the circumstances may justify the presumption that the crew has taken all necessary measures, in particular if the accident is most probably due to *force majeure*;¹³⁸ in that case—the author adds—there is, however, no further question of an unknown cause of accident. Also, the carrier may escape liability if he is able to point out all possible causes under consideration and proves that no fault has been committed in connection with any of these possibilities.¹³⁹ However, in the case of a fully unexplained cause of damage the carrier cannot furnish the exonerating proof.

Several writers have expressed views, more or less detailed, along the same lines, thus *Koffka-Bodenstein-Koffka*,¹⁴⁰ *Sullivan*,¹⁴¹ *Schleicher*,¹⁴² *Oppikofer*,¹⁴³ (apparently) *Sauveplanne*,¹⁴⁴ *Achtnich*¹⁴⁵ and *Drion*.¹⁴⁶

Also *Abraham*¹⁴⁷ holds the opinion that lack of knowledge of the origin of the damage (a “non liquet”) will entail the liability of the carrier. This conclusion is based upon an examination of the existing court decisions on the question, and it is pointed out that this interpretation corresponds to the prevailing views in maritime law.¹⁴⁸

Calkins has given expression to the same views by stating that “frequently a non-negligent defendant (carrier) will be held liable because of complete absence of proof to exculpate himself.”¹⁴⁹ And the author continues:

“... in a certain number of situations, of which the Grand Canyon accident¹⁵⁰ may be typical, the law becomes stalled on dead center because of total absence of proof. Society—particularly the air traveling part of it—owes a self-interested obligation to see that in such circumstances the individual does not lose out.”

Finally, some authors, although not touching upon the unknown cause of damage directly, have expressed themselves concerning the carrier's possibilities of furnishing the proof required in Art. 20. *Hernandez*¹⁵¹ holds the view that this proof is very easily established, while *Maschino*,¹⁵² *Schleicher-Reymann*,¹⁵³ *Sune Wetter*,¹⁵⁴ and *Francais*¹⁵⁵ on the other hand consider it very difficult for the carrier to satisfy the requirements of Art. 20. The latter opinion is also expressed by *Knauth*¹⁵⁶ who seems to place it on an equal footing with proof of *force majeure*.

The examination of the viewpoints of the authors has revealed differences of opinion to a large extent with regard to the requirements to satisfy the carrier's burden of proof pursuant to Art. 20 paragraph 1. Above all, the schism stands out in cases of completely, or almost completely, unknown cause of damage in which the court will have (almost) no evidence at all to build upon when considering the questions concerning the crew's due diligence and the efficiency of the measures taken by the carrier's ground staff to secure a safe flight. Is a *general* proof consisting in furnishing the relevant licenses, certificates etc. to be considered satisfactory proof of the due care of the servants or agents in such cases? The partisans of an answer in the affirmative have first of all derived support for their interpretation of Art. 20 paragraph 1 from the preparatory works of the Convention, and in the following these works will be examined.

b. Preparatory Works

As previously mentioned the origin of the present Art. 20 of the Warsaw Convention is to be found in the draft convention drawn up by the First International Conference on Private Air Law in Paris 1925.¹⁵⁷ Art. 5 and 6 ran as follows:

Article 5: "Le transporteur est responsable des accidents, pertes, avaries et retards. Il n'est pas responsable s'il prouve avoir pris les mesures raisonnables pour éviter le dommage; cette preuve est admise même dans le cas où le dommage provient d'un vice propre de l'appareil."

Article 6: "Le transporteur répond des fautes commises par ses préposés. Toutefois, en cas de faute de navigation, le transporteur ne sera pas responsable s'il fait la preuve à l'article précédent."¹⁵⁸

In his report of 1925, also earlier referred to, Pittard has expounded these provisions as follows:

"La Commission s'est demandée quel régime de responsabilité il fallait adopter: risque ou faute. L'opinion générale est que, tandis que la responsabilité civile à l'égard des tiers, doit comporter l'application de la théorie du risque, en revanche, dans la responsabilité du transporteur à l'égard des passagers et des marchandises, il faut admettre la théorie de la faute.

Ce premier point acquis, on peut se demander à qui incombe le fardeau de la preuve; il a paru équitable de ne pas imposer cette lourde charge au lésé et l'on a admis la présomption de faute à la charge du transporteur. Mais comme ce n'est qu'une présomption, le transporteur a évidemment le droit de rapporter la preuve contraire et l'on doit alors établir nettement la limite de la faute; où commence celle-ci?

Que peut-on exiger du transport aérien? Une organisation normale de son exploitation, un choix judicieux de son personnel, une surveillance constante de ses agents et préposés, un contrôle sérieux de ses appareils accessoires et des matières employées.

Il faut bien admettre que celui qui utilise un aéronef n'ignore pas les risques inhérents à un mode de circulation qui n'a pas encore atteint le point de perfection que cent années ont donné aux chemins de fer. Il est donc juste de ne pas imposer au transporteur une responsabilité absolue et de le dégager de toute responsabilité lorsqu'il a pris les mesures raisonnables et normales pour éviter le dommage; c'est la diligence que l'on peut exiger du bon père de famille.

Plus délicate encore est la question de la responsabilité du transporteur pour ses préposés.

Le texte qui vous est soumis comporte l'application de deux principes. Le premier est d'une application générale, à savoir que le maître répond des actes de ses préposés; le second, déjà retenu pour la responsabilité du transporteur, c'est qu'il n'y a pas de responsabilité sans faute, celle-ci étant présumée jusqu'à preuve rapportée de la diligence raisonnable.

On peut se demander si la responsabilité du transporteur ne se trouve pas ainsi plus étendue en ce qui touche les préposés que pour lui-même; mais c'est là une simple apparence. En effet, dans les deux cas, il n'y a de responsabilité que s'il y a faute ou plus exactement si la faute présumée n'a pas été annulée par la preuve que les mesures raisonnables ont été prises pour éviter le dommage; mais, tant que cette preuve n'est pas rapportée, la présomption de faute subsiste et le maître est responsable aussi bien du fait de ses préposés que des siens propres."¹⁵⁹

Several authors have referred to the passage commencing with the words "Que peut-on exiger . . ." to support the interpretation according to which the carrier need not explain the cause of damage in order to satisfy the requirements for his burden of proof. This is true both in respect of authors putting forward a *liberal* interpretation of Art. 20¹⁶⁰ and of those taking a restrictive interpretation as their starting point but permitting a *presumption* to the effect that due diligence has been shown when the circumstances do not render a direct proof possible.¹⁶¹

It is correct that the passage referred to does not impose upon the carrier the obligation to prove that up to the moment of damage no faults have been committed by the crew. But this does not justify the conclusion that a "general" proof of—or a presumption of—the diligence of the crew is sufficient or permissible when the circumstances render a direct proof impossible. Pittard's report must be read in its entirety. Then it will be seen that the quoted passage concerns the carrier's liability in respect of his own acts only (Art. 5 of the draft). The question of the carrier's responsibility with regard to faults committed by his servants or agents—including

the crew—(Art. 6), is only dealt with further down in the report, viz. from the passage beginning with the words “Plus délicate encore est la question de la responsabilité du transporteur pour ses préposés. . .” And in *that* part of the report nothing is said which could be taken in support of a liberal interpretation of Art. 20 or of a presumption to the above mentioned effect. In fact, the report, in exposing the principles of liability of the draft convention, does not seem to touch at all upon the specific question of the requirements to satisfy the carrier’s burden of proof. The report states *that* the system of liability is based upon fault; *that* the burden of proof (“cette lourde charge”)¹⁶² is imposed on the carrier, *that* the carrier is liable for the faults of his servants or agents, *that* he can escape liability by proving that he and they have taken all reasonable measures, and, finally, *that* an exception from this system of liability has been admitted to the effect that the carrier is not held liable for the nautical faults of his crew. But nothing has been stated which could serve as a guide with regard to the question of *how* to furnish the proof required.

During the further discussions in CITEJA on the proposed convention the question of liability was not dealt with in detail until the Third Session in Madrid, May 1928.¹⁶³ In his report to the Committee the rapporteur, M. Henry de Vos, Belgium, referred extensively to Pittard’s earlier report of 1925 with regard to the principles of liability.¹⁶⁴ The German delegation, however, wanted the air carrier’s liability to be more stringent and proposed therefore principally to delete the provision according to which the carrier might escape liability in cases of nautic faults on the part of his servants or agents, and in the alternative—as a compromise—that the provision should cover carriage of goods and baggage only.¹⁶⁵ The Committee adopted the alternative proposal and at the same time another amendment was approved according to which the carrier could never escape liability if latent defect in the aircraft was proved.¹⁶⁶ In the new draft convention Art. 22 was drawn up accordingly.¹⁶⁷

At the Warsaw Conference in October 1929 a new report, dated September 25, 1928,¹⁶⁸ was presented by M. de Vos—once more rapporteur. Again reference was made to Pittard’s report of 1925¹⁶⁹ with regard to the principles of liability of the draft convention. The only changes were the Madrid amendments the reasons for which were explained in the report.

During the discussions in Warsaw two opposite trends manifested themselves with respect to the principles of liability, and an extensive exchange of views took place.¹⁷⁰ According to one opinion the air carrier ought to be responsible for all faults committed by his servants or agents, including nautical faults in the carriage of goods and baggage. Other delegates held an opposite view. They proposed to exempt the carrier from being held liable in all cases of nautic faults committed by his servants or agents, and furthermore to delete the strict liability for latent defects in the aircraft.¹⁷¹ As a compromise between these views the present Art. 20 was drawn up.

The question concerning the requirements to satisfy the carrier’s burden of proof pursuant to Art. 20 was, however, touched upon by implication only. Examining the proposal for the compromise from which the existing Art. 20 emanated, the French delegate M. Fladin stated:

“ . . . en fait on peut classer les accidents d’avions en trois catégories: ceux qui proviennent d’une faute de pilotage; ceux qui proviennent d’un vice de fonctionnement de l’appareil et ceux qui sont désignés comme étant le résultat du cas fortuit, ce qui est la majorité des cas.

Si nous adoptons la formule transactionnelle, en ce qui concerne les premiers cas, ceux qui résultent d’une faute de pilotage, il y aura responsabilité du transporteur, mais pour les passagers seulement. Pour les autres, ceux qui proviendraient du vice de fonctionnement de l’appareil, il est bien entendu qu’il n’y aurait aucune responsabilité du transporteur.

Quant à la troisième catégorie d'accidents, ceux qui proviennent du cas fortuit, dès maintenant, par le jeu de la convention, le transporteur est toujours déclaré responsable."¹⁷²

The last remark is surprising. By a number of authors from the Civil Code countries it has been stated that the liability pursuant to Art. 20 paragraph 1 is *less* burdensome to the carrier than the contractual liability in the Civil Codes ¹⁷³ according to which the contract-debtor has to prove that the non-execution of the contract was due to "*force majeure*" or "*cas fortuit*."¹⁷⁴ M. Fladin's statement might indicate very strict requirements for the fulfilment of the carrier's burden of proof. But no grounds having been given nor any further explanation, the statement seems not to be sufficiently elaborated to form a basis from which support may be derived for a certain interpretation of Art. 20 paragraph 1.

During the examination of "les questions de fond de deuxième importance" the question was also raised indirectly by the Japanese delegate, M. Motono. At M. Motono's request the rapporteur explained the meaning of the then Art. 22, and the following exchange of words took place:

"M. de Vos . . . : Il y a les mesures raisonnables que peut prendre le transporteur et il y a les mesures que peut prendre le pilote.

M. Motono . . . : Qu'est-ce que vous entendez par "mesures raisonnables"?

M. de Vos . . . : Cette expression qui a un sens plus précis en Grande-Bretagne que sur le Continent, sera interprétée par le juge suivant chaque cas.

M. Motono . . . : Est-ce que vous entendez dire que le fait de prendre un pilote capable suffit?

M. de Vos . . . : C'est une question d'interprétation. Le comité de rédaction pourra peut-être préciser le sens de cette expression."¹⁷⁵

No definition or clarification, however, seems to have been given during the Conference.

The examination of the preparatory works of the Convention seems to justify the conclusion that *no* support can be derived from these works for a specific interpretation of Art. 20 paragraph 1 in one or another direction in respect of the question concerning the requirements to satisfy the burden of proof imposed upon the carrier. The only answer to be found in the preparatory works appears to be the above quoted: "It is a matter of interpretation"!

c. Implementation Acts and Domestic Carriage by Air Acts

Turning once again to the national implementation Acts it will be seen that in respect of the problem now under discussion, they do not give much guidance, either. By reproducing the original text literally they just take over the problem without indicating any approach to its solution. Once again, however, the Scandinavian and the Finnish Acts¹⁷⁶ constitute exceptions. In these Acts the Articles corresponding to Art. 20 paragraph 1 of the Convention run as follows:

"The carrier is not liable if it is proved that the damage is not caused by his fault or that of his servants or agents . . ."¹⁷⁷

With a wording along these lines the requirements to satisfy the carrier's burden of proof have been specified through the requirement for **proof to** the effect that the damage was not *caused* by faults. Thereby the explanation of the cause of damage has been given a leading part in the exculpating proof.¹⁷⁸

It is worth noting, however, that in the Danish proposal for a new Aviation Act,¹⁷⁹ in which the Warsaw rules as amended by The Hague Protocol of 1955 are included, a literal translation of Art. 20 paragraph 1 has replaced the above quoted text. The change of wording has been explained in the

proposal by a short statement to the effect that the new text is closer to that of the Convention than the existing one. This approximation to the text of the Convention seems to be an advantage. For the sake of the ultimate purpose behind the Convention: the unification of law, the national implementation Acts should follow the wording of the original text as closely as possible. Interpretation of the Convention rests with the courts, not with the national legislator.

In some cases even the domestic carriage by air Acts and their preparatory works may give expression to a certain understanding of Art. 20 paragraph 1 of the Convention. This is true with respect to the recent Acts of France and Australia. In *France* the Act of March 2, 1957, concerning the air carrier's liability¹⁸⁰ has introduced, by way of a general reference to the Convention, the Warsaw rules into the French legislation governing non-Warsaw carriage, thus superseding the earlier Art. 41, 42, 43 and 48 of the French Act of May 31, 1924.¹⁸¹ In Art. 6 of the Bill presented by the French Government in 1955, however, the carrier's defenses in Art. 20 paragraph 1 and Art. 21 of the Convention were paraphrased into: "force majeure," "vice propre à la chose transportée," and "une faute imputable au voyageur, à l'expéditeur ou au destinataire," and the following explanatory statement was added:

"L'article 6 substitue aux dispositions de l'article 20 paragraphe 1 de la Convention de Varsovie des règles mieux adaptées aux concepts juridiques français et dont les résultats pratiques ne devraient pas être sensiblement différents de ceux recommandés par le texte international . . ."¹⁸²

This seems to indicate a very restrictive interpretation of Art. 20 paragraph 1. Yet, in the present French Act of March 2, 1957, no paraphrasing or explanation of Art. 20 paragraph 1 is to be found.

In the *Australian Civil Aviation (Carrier's Liability) Act No. 2 of 1959*, an even more restrictive understanding of Art. 20 paragraph 1 has resulted in its deletion altogether as far as domestic carriage of passengers is concerned, see Part IV Section 28 of the Act, (but for the opposite, see Section 29 concerning baggage). In presenting the Bill to the Senate, the Minister for Shipping and Transport and Minister for Civil Aviation (Senator Paltridge) stated in respect of Art. 20 of the Warsaw Convention:

"The onus of proof is on the carrier, and it is certainly a very narrow defense since, in most foreseeable cases, if the carrier 'takes all necessary measures to avoid the damage,' the accident would not have occurred.

...
The carrier is strictly liable up to a prescribed limit of 7,400 pounds¹⁸³ in respect of death or injury of a passenger, unless he successfully sets up the narrow defense provided in Art. 20 . . . Experience under the international rules indicates that the carrier has rarely sought to establish this defense and that it would be most difficult to do so successfully. However, it does introduce an element of uncertainty as to passengers' rights and for domestic purposes it is, therefore, proposed to deprive the carrier of this defense."¹⁸⁴

Other Senators held concurring views,¹⁸⁵ and in reply to the only one expressing doubt as to the understanding advanced on Art. 20¹⁸⁶ the Minister said:

"... In fact, the defense is so narrow that the Convention is regarded internationally as imposing absolute liability . . ."¹⁸⁷

The expressions of doubt seem, however, to have been well-founded considering these categorical statements!

d. *Revision Works and The Hague Conference 1955*

While the problem of the requirements to satisfy the carrier's burden of proof was touched upon only lightly and indirectly at the Warsaw Con-

ference 1929, it has been discussed at considerable length during the revision works on the Convention and at The Hague Conference in 1955. Being a problem of great practical importance it had presented itself several times in the application of Art. 20 paragraph 1 and had soon caused conflicting court decisions as well as conflicting opinions among writers.

During the meeting of the Second Commission of CITEJA in Paris, January 1939, the problem was discussed in connection with a British memorandum concerning the revision of the Warsaw Convention, dated September 28, 1938,¹⁸⁸ in which the British points of view were exposed as follows:

"... According to the Convention the carrier has to show not only that it itself has taken all necessary measures, but it must also prove the same as to its servants ... including the pilot of the aircraft. It is notorious that most flying accidents are caused by some default or other of the human element; in any event, it is certain that the majority of accidents can be attributed directly or indirectly to some act or omission of the personnel. Considering that in a great number of cases the pilot is himself killed in the accident, it will be understood that the carrier rarely has the opportunity to bear the burden of proof imposed on him by the Convention."

The attitude of the United States delegation to the meeting is reflected in the following passage:

"... It has been asked whether, in the sense of the Convention, the carrier may be freed from his liability for what have commonly been called the 'risks of the air' (as provided in the French Air Law of May 31, 1924), or if the Convention establishes a presumption of liability which the carrier cannot overcome unless he can prove that the accident was inevitable from the practical point of view.

We suggest that the former proposal is fair; but the results conform to the latter."¹⁸⁹

After the second world war CITEJA resumed its activities and the revision of the Warsaw Convention was among the first subjects for its studies. In a questionnaire containing nineteen questions of principle and distributed during the meeting of the Second Commission of CITEJA, July 1946,¹⁹⁰ question no. XV ran as follows:

"Shall the carrier be responsible in all cases of fault on the part of his servants or agents, and what proof is to be furnished when the aircraft has disappeared with the whole crew?"

Few of the experts from the various States seem to have answered this question. In the reply from the Greek expert¹⁹¹ it was said that, perhaps, in difficult cases, the carrier should be allowed to prove the non-existence of fault on the part of his servants or agents by a presumption to this effect. The *Egyptian* expert¹⁹² thought it equitable to make it possible for the carrier to prove, in the case in question, that it was impossible for him to avoid the damage. The *Dutch* delegation¹⁹³ suggested to reconsider an earlier proposal from IATA¹⁹⁴ to the effect that if the circumstances render it impossible for the carrier to prove that all the measures have been taken, the absence of circumstances and facts constituting a presumption of fault on the part of his servants or agents should be sufficient to relieve the carrier of his liability. Finally, the *Norwegian* expert¹⁹⁵ gave the following answer—which seems to be the most natural one to the question: "In case of an aircraft disappearing with the whole crew"—the expert said—"it must be left to the courts to consider the proof after the circumstances, and it is not possible to formulate specific rules hereon."

During the discussions of the Second Commission of CITEJA, Cairo, November 1946, the problem was brought up again.¹⁹⁶ In reply to a question concerning the carrier's possibility of furnishing the required proof in the

case of an aircraft disappearing into the ocean, the rapporteur, M. Beaumont, answered: ". . . As far as I am concerned I think that we shall not decide upon the questions which the courts will have to deal with in the different countries,"—thus giving expression to the same line of thinking as the one stated by the Norwegian expert. Other members of the Commission seemed to incline towards an understanding according to which the carrier could escape liability in the given case.

On the whole, the answers of the CITEJA experts seem to reflect an attitude according to which the requirements for the carrier's proof should be rather moderate. However, next time the question was raised, the opposite views were prevailing. When discussing the revision of the Warsaw Convention in Madrid, September 1951, the Legal Committee of ICAO touched upon the question of the unknown cause of damage in connection with its examination of Art. 20. On that occasion it was stated both by the French and the United Kingdom delegate that in cases of unknown cause of damage the carrier cannot show that he has taken all necessary measures.¹⁹⁷

In Rio de Janeiro, 1953—the last preparatory meeting before the revision of the Warsaw Convention at The Hague in 1955—the discussion was focused on the problem of the unknown cause of damage by a Dutch proposal for amendment of Art. 20 paragraph 1 which ran as follows:

"The carrier shall not be liable if he proves that the damage was not caused by negligence or breach of duty on his part or on the part of his servants and agents."¹⁹⁸

One of the purposes behind this proposal was to provide for the case of unknown cause of damage to the effect that "the carrier should bear the risk of the impossibility of proving the real cause of the accident, and that meant that, consequently, the carrier would be liable."¹⁹⁹ After a lengthy discussion the Dutch proposal was rejected by a vote of 11 to 8.²⁰⁰ As the debate in Rio de Janeiro was repeated at The Hague Conference it will not be made subject for further comments here, but the points of view advanced will be dealt with in connection with the examination of The Hague discussions.

At The Hague the Dutch proposal was put forward again, and once again it was rejected—this time by a vote of 28 to 8—and Art. 20 paragraph 1 remained unchanged.²⁰¹ This vote, however, does not justify the conclusion that the majority of the delegates was opposed to the idea that the carrier has to bear the risk of the impossibility of explaining the cause of damage. An analysis of the discussion reveals that several delegates, though agreeing in principle with the Dutch proposal as far as liability for unknown cause of damage was concerned, voted *against* the proposal for *other reasons*. That was the case, for example, with the *United States* delegate. While in agreement with the Dutch proposal with regard to inexplicable accidents, he disagreed, on the other hand, with the insertion of the expression "negligence."²⁰² The *German* delegate expressed himself, in principle, along the same lines,²⁰³ and his remarks were fully endorsed by the *United Kingdom* delegate.²⁰⁴ A number of other delegates stated that they did not favor any change in the present Art. 20 paragraph 1, the text of which had already had a certain practical application without creating difficulties.²⁰⁵

Only two delegates expressed opposition to the Dutch proposal on the grounds that they disagreed with the views concerning the unknown cause of damage. The *Italian* delegate stated that with the Dutch proposal

"The carriers would find themselves in a worse situation than at present, if they had to prove that neither they nor their employees had committed a fault. In fact, it was easier to prove that one had taken the

necessary measures than to prove (negatively) that one had not been at fault."²⁰⁶

The *Spanish* delegate "did not think that the liability had to be imposed on the carrier," either pursuant to the present text or to the Dutch proposal, in cases of unknown cause of damage.²⁰⁷

What conclusions are to be drawn from the discussions during the revision work and at The Hague Conference? It seems justified to conclude that a tendency towards raising the standard of requirements to satisfy the carrier's burden of proof can be perceived through these discussions. This tendency is undoubtedly influenced by the ever increasing degree of safety under which air carriage is performed.

But one more conclusion can be drawn from the debates—and this is unfortunately the most conspicuous one: The present text of Art. 20 paragraph 1 is susceptible of conflicting interpretations, and, having not seized the opportunity to amend the existing wording of the Article, the Conference gave free rein to continuing uncertainty and conflicting decisions in the application of Art. 20. Although it has to be admitted that even the most well-formulated text may give rise to divergent interpretations, in particular with regard to the question of proof, no reason seems to exist why it should be impossible to reach an agreement upon a wording of Art. 20 paragraph 1 which at any rate would have *limited* the possibilities of conflicting interpretations. The Dutch proposal appeared suitable for this purpose. To agree upon the retaining of Art. 20 paragraph 1 is tantamount to an agreement upon a highly ambiguous formula under the cover of which almost any interpretation can be advanced—suitable for anyone—but for the efforts of unification of law!

(Continued in next issue)

FOOTNOTES

¹ In this study the term "fault" is preferred to the word "negligence," though the latter expression will appear now and then, for the sake of variation, in the same sense as the former.

² See *Tybjerg: Om Bevisbyrden* (On the Burden of Proof), Copenhagen 1904, p. 58 f., in particular p. 61.

³ See *Alf Ross* in *Ugeskrift for Retsvæsen* (Denmark) 1930 B p. 355-356.

⁴ In this connection it must be remembered that damage may be caused even if no *accident* has taken place.

⁵ International Civil Aviation Organization (Montreal).

⁶ ICAO Circular 56—AN/51 (1959).

⁷ *Ibid.* p. 4-6.

⁸ The Convention, the official text of which is drawn up in French only, is one of the most widely accepted Conventions in existence.

⁹ The Protocol has not yet come into force. Pursuant to its Art. XXII the Protocol will become effective when ratified by at least thirty signatory States; see *infra* note 325 (Part II of this study).

¹⁰ The Convention became effective on February 4, 1958; see *infra* note 330 (Part II of this study).

¹¹ See ICAO Doc. 7601-LC/138, Tenth Session of the Legal Committee, Montreal 1954, p. XVII-XXII. See also ICAO LC/Working Draft No. 642 (2/5/60), revised draft convention on aerial collisions drawn up by the Sub-Committee of the Legal Committee during its meeting in Paris from March 28 to April 8, 1960.

¹² See ICAO Doc. 8010 A12-LE 1, Report and Minutes of the Legal Commission, Twelfth Session of the Assembly, San Diego, Calif., June-July 1959, p. 5.

¹³ In The Hague Protocol of 1955 this paragraph has been deleted and replaced by the following: "(2) This Convention (i.e. the Warsaw Convention) shall not apply to carriage of mail and postal packages," see the Protocol Art. II.

¹⁴ The scope of Art. 34 has been considerably narrowed down in Art. XVI of The Hague Protocol which replaces the present Art. 34 by the following text: "The provisions of Articles 3 to 9 inclusive relating to documents of carriage shall not apply in the case of carriage performed in extraordinary circumstances outside the normal scope of an air carrier's business."

¹⁵ Of great practical importance is the question whether round trip tickets should be considered to involve only one carriage or two operations of carriage. Both British and American Courts have adopted the former view, see *Grein vs. Imperial Airways Ltd.*, United Kingdom, King's Bench Division, October 23, 1935, Court of Appeal, July 13, 1936, U.S. Av. R. 1936 p. 184-250; *Garcia vs. Pan American Airways, Inc.*, State of New York, Appellate Division of Supreme Court, May 21, 1945, U.S. Av. R. 1946 p. 496-499 (and *ibid.* 1945 p. 39-45); *Glenn vs. Cia Cubana de Aviacion S.A.*, Southern District of Florida, Miami Division, February 1, 1952, U.S. Av. R. 1952 p. 182-187.

¹⁶ See ICAO Doc. 7686-LC/140, The Hague Conference 1955 (in the following called The Hague Conference 1955) p. 22-24, 29-31.

¹⁷ See in this connection Art. 28 paragraph 1 of the Convention which runs as follows: "An action for damages must be brought, at the option of the plaintiff, in the territory of one of the High Contracting Parties, either before the Court having jurisdiction where the carrier has his domicile or has his principal place of business, or has an establishment by which the contract has been made, or before the Court having jurisdiction at the place of destination."

¹⁸ By way of example, see Art. 3 paragraph 2, Art. 4 paragraph 4 and Art. 5 paragraph 2.

¹⁹ See "Rapport présenté au nom du Comité International Technique d'Experts Juridiques Aériens (CITEJA) par M. Henry de Vos," September 25, 1928, see II Conference Internationale de Droit Privé Aérien, October 4-12, 1929, Warsaw, printed in Warsaw 1930 (in the following called Warsaw Conference 1929) p. 160.

²⁰ Similar *H. Drion*: Limitation of Liabilities in International Air Law, The Hague 1954, no. 51, and *O. Riese*: Luftrecht, Stuttgart (Germany) 1949 p. 406-407.

²¹ The opposite view is held by *A. Schweickhardt* in *Zeitschrift für Luftrecht (Z.f.L.)*, Germany, 1954 p. 9.

²² Thus *O. Koffka*, *H. G. Bodenstein*, *E. Koffka*: Luftverkehrsgesetz und Warschauer Abkommen, Berlin 1937, p. 268; *R. Coquoz*: Le droit privé international aérien, Paris 1938, p. 86; *Riese op. cit.* p. 406; *H. Achtnich* in *Z.f.L.* 1952 p. 343-344; *Dolk* in *Z.f.L.* 1953 p. 314-317; *A. Schweickhardt* in *Z.f.L.* 1954 p. 9.

²³ See *D. Goedhuis*: La Convention de Varsovie, The Hague 1933 (in the following called Goedhuis 1933) p. 89-90; same author: National Airlegislation and the Warsaw Convention, The Hague 1937 (in the following called Goedhuis 1937) p. 129-130; but compare same author: Handboek van het Luftrecht, The Hague 1943 (in the following called Goedhuis 1943) p. 205, where the author seems to be in doubt; *Drion op. cit.* no. 54.

²⁴ The draft convention is reproduced in ICAO Doc. 7921-LC/143-1, Eleventh Session of the Legal Committee, Tokyo 1957, p. XX-XXI. See also ICAO LC/Working Draft No. 641 (4/26/60), revised draft convention drawn up by the Subcommittee of the Legal Committee during its meeting in Paris from March 21, to March 26, 1960.

²⁵ See, however, the exception made in Art. V of the draft as far as carriage of cargo is concerned. The draft convention will be reconsidered during the Thirteenth Session of the Legal Committee of ICAO in Montreal, September 1960.

²⁶ See *Drion op. cit.* no. 56.

²⁷ See also *Drion op. cit.* no. 36.

²⁸ Poincaré francs are French francs with a fixed fineness, see Art. 22 paragraph 4. In The Hague Protocol Art. XI the sum has been raised to 250,000 Poincaré francs (about 16,600 U.S. dollars).

²⁹ See Art. 25 of the Convention. The Article, which has been the subject of more litigation than any other provision of the Convention, was amended by The Hague Conference, 1955. The Hague Protocol Art. XIII includes the following new wording: "The limits of liability specified in Article 22 shall not apply if it is proved that the damage resulted from an act or omission of the carrier, his servants or agents, done with intent to cause damage or recklessly and with knowledge that damage probably result; provided that, in the case of such act or omission of a servant or agent, it is also proved that he was acting within the scope of his employment." It will be seen that a concrete description of the acts or omissions entailing unlimited liability has been substituted for references to national law or to traditional legal concepts.

³⁰ Italics supplied. Concerning the reasons for which an "accident" is a condition for imposing liability pursuant to Art. 17 but not Art. 18, see ICAO Doc. 6027-LC/124, Fourth Session of the Legal Committee, Montreal 1949, p. 270; ICAO Doc. 7229-LC/133, Eighth Session of the Legal Committee, Madrid 1951, p. 136-137; ICAO Doc. 7450-LC/136, Ninth Session of the Legal Committee, Rio de Janeiro 1953, p. 71-72. See also *Drion op. cit.* no. 63 and *Riese op. cit.* p. 443-444.

³¹ Although the text of the First Schedule of the British Carriage by Air Act, 1932, which implements the Warsaw Convention, and the translated text of the

Convention as ratified by the United States Senate, 1934, only contain the word "agents" as translation of the French "préposés," the expression "servants or agents" is used here and in the following. See also the United Kingdom Civil Aviation Act, 1949 Section 54: "Explanation of Carriage by Air Act 1932. For the avoidance of doubt in the construction of the Carriage by Air Act, 1932, whether as forming part of the law of the United Kingdom or as extended to any other country or territory, it is hereby declared that references to agents in the First Schedule to that Act include references to servants."

³² Concerning this problem see Part II of this study regarding the new Art. 23 paragraph 2 of the Warsaw Convention (The Hague Protocol Article XII).

³³ See Conference Internationale de Droit Privé Aérien, October-November, 1925, Paris, printed in Paris 1926 (in the following called Paris Conference 1925) p. 77-83. The very origin to the Warsaw Convention is found in the "Avant-Projet de Convention internationale relative à la responsabilité du transporteur par aéronaves" which was submitted by the French Government to the Governments concerned as a working basis before the Paris Conference 1925, see Paris Conference 1925 p. 10-14. The liability provisions in Art. 3 and 4 of the draft contained, however, a terminology different from the later drafts. The carrier was responsible for personal faults, latent defects in the aircraft, and for "commercial" faults on the part of his servants or agents, but he was *not* to be liable for *force majeure*—including "les risques de l'air"—for (non-intentional) faults committed by his servants or agents in the steering of the aircraft or in additional operations, or for faults on the part of the passenger or inherent defects of the goods. The proposed system of liability was, of course, influenced considerably by the principles contained in the French Air Navigation Act of May 31, 1924. Pursuant to Art. 41 of this Act the carrier was not liable for *force majeure*, and Art. 42 and 48 permitted the carrier to contract out of liability for "les risques de l'air" and faults in the steering of the aircraft committed by his servants or agents on board the aircraft. The notion of "les risques de l'air" seems to have caused great difficulties in France, see for example *M. de Juglart: Traité Élémentaire de Droit Aérien*, Paris 1952, no. 266. Juglart holds the view that damage resulting from undetermined reasons cannot in general be considered as caused by "les risques de l'air." *Lacombe and Saporta* (in *Revue Générale de l'Air* (R.G.A.) (France) p. 3-18), on the other hand, state that this notion in reality is tantamount to the unexplained cause of damage. During the Paris Conference 1925, however, the terminology of the French proposal was substituted with expressions more influenced by Anglo-Saxon way of thinking.

³⁴ For the full wording of Art. 5 and 6, see *infra* p. 15.

³⁵ See Paris Conference 1925 p. 52-59. M. Pittard, Switzerland, was Rapporteur of the Second Commission of the Conference which dealt with the question of the air carrier's liability.

³⁶ The Paris Conference 1925 p. 55-56.

³⁷ See G. Ripert in *Revue Juridique Internationale de la Locomotion Aérienne*, Paris, 1926 p. 1-16, especially p. 7; and the same author in *Revue Générale de Droit Aérien* (R.G.D.A.), Paris, 1932, p. 251-267, especially p. 264-265. See also Warsaw Conference 1929 p. 31 and 113.

³⁸ The original text of the Convention was drawn up in French only. The text is reproduced in *Carver's: Carriage of Goods by Sea*, Tenth Edition by R. P. Colinviaux, London 1957, p. 1022-1030.

³⁹ In Anglo-American maritime law "due diligence" has been described as: "the diligence used or exercised by prudent ship owners and their employees in like circumstances. The ship owner should not be held to a standard of conduct which is impossibly high," see W. Poor: *American Law of Charter-Parties and Ocean Bills of Lading*, Fourth Edition, Albany, N. Y., New York 1954, p. 163; or "reasonable diligence, having regard to the circumstances known, or fairly to be expected, and to the nature of the voyage, and to the cargo to be carried," see *Carver's op. cit.* p. 181.

⁴⁰ See *supra* note 19.

⁴¹ See Warsaw Conference 1929 p. 172.

⁴² See "Rapport présenté au nom du CITEJA par M. de Vos, Rapporteur," dated September 25, 1928, see Warsaw Conference 1929 p. 159-166. See also the Rapporteur's oral presentation *ibid.* p. 15-16.

⁴³ *Ibid.* p. 210.

⁴⁴ *Ibid.* p. 20 (the members of the preparatory commission).

⁴⁵ *Ibid.* p. 181.

⁴⁶ Concerning these distinctions, see *ibid.* p. 22 and the Rapporteur's exposé p. 25-26 (*ibid.*).

⁴⁷ *Ibid.* p. 136.

⁴⁸ *Ibid.* p. 136-137.

⁴⁹ *Ibid.* p. 25-37.

⁵⁰ See for Denmark: lov nr. 123 af 7 maj 1937 om befordring med luftfartøj § 20 stk. 1; for Norway: lov nr. 6 af 12 juni 1936 om befordring med luftfartoi § 6 stk. 1; for Sweden: lag 5 marts 1937 om befordran med luftfartyg 20 § 1 stk; for Finland: lag 3 juli 1937 om befordran med luftfartyg 20 § 1 stk.

These Acts regulate in principle *all* carriage: Warsaw carriage, international non-Warsaw carriage, and domestic carriage, cf. § 1 of the Acts.

⁵¹ The German text is reproduced by Koffka-Bodenstein-Koffka *op. cit.* p. 322. See also Riese *op. cit.* p. 455.

⁵² In this connection it is interesting to note that in some cases the national legislations, in introducing the Warsaw principles into the law relating to non-Warsaw carriage, have tried to give an interpretation of the words "all necessary measures." Thus the *Italian* Navigation Act of April 21, 1942, Art. 942 and 951 cf. 945 exonerate the carrier from liability upon proof that "egli e i suoi dipendenti e preposti hanno preso tutte le misure necessarie e possibili, secondo la normale diligenza, per evitare il danno." In the *United Kingdom* the Carriage by Air (non-international Carriage) Order 1952, Art. 20 runs as follows: "The carrier is not liable if he proves that he and his servants or agents have taken all reasonable measures to avoid the damage or that it was not reasonably possible for him or them to take such measures."

⁵³ See CITEJA Doc. 373, Second Commission, Compte Rendu, January 23, 1939, Paris.

⁵⁴ See CITEJA Doc. 394, Second Commission, Rapport sur le Revision de la Convention de Varsovie, présenté par Sir Maurice Amos, April 1940, p. 14.

⁵⁵ ICAO Doc. 7450 L.C./136, Ninth Session of the Legal Committee, 1953, Vol. I p. 79 and Vol. II p. 44.

⁵⁶ *Ibid.* Vol. II p. 98.

⁵⁷ The Hague Conference 1955, Vol. II p. 145.

⁵⁸ *Ibid.* Vol. I p. 99 and 104.

⁵⁹ *Ibid.* Vol. I p. 95.

⁶⁰ For other proposals, see ICAO Doc. 7450-LC/136, Ninth Session of the Legal Committee, 1953, Vol. I p. 100-101.

⁶¹ See The Hague Conference 1955, Vol. I p. 94-105.

⁶² *Ibid.* p. 95 and 101.

⁶³ Such views were expressed—directly or indirectly—by the delegates of Argentine, the Netherlands, Italy, the United States, Greece, France, Norway, Spain, see The Hague Conference 1955 p. 94-101.

⁶⁴ *Ibid.* p. 97-98 (Mr. Riese). These remarks were approved by the United Kingdom delegate (M. Beaumont), see p. 99. They seem not, however, to be in conformity with the opinion expressed by Riese in his *Luftrecht* p. 455, see *infra* note 71.

⁶⁵ *Ibid.* p. 86 (Mr. Calkins).

⁶⁶ See G. Ripert in R.G.D.A. 1932 p: 264-265.

⁶⁷ Coquoz *op. cit.* p. 136-137.

⁶⁸ Giannini: Nuovi saggi di diritto aeronautico, Milona 1940, p. 103.

⁶⁹ A. Ambrosini in Rivista di Diritto Aeronautico (Italy) 1938 p. 164 f.

⁷⁰ M. Lemoine: Traité de Droit Aérien, Paris 1947, no. 819-820.

⁷¹ Riese *op. cit.* p. 455-456. See also Riese and Lacour: Précis de Droit Aérien, Paris and Lausanne 1951, p. 272, where, however, it is added that "le texte francais de la Convention en utilisant les mot "mesures nécessaires" a certainement voulu renforcer les obligations mises à la charge du transporteur puisque le texte originaire parlait de "mesures raisonnables." As has been shown above this is *not* the case.

⁷² K. M. Beaumont in Journal of Air Law and Commerce 1949 p. 40.

⁷³ M. Picard: Le Droit Aérien, Cairo 1949, p. 154-155.

⁷⁴ P. Chauveau: Droit Aérien, Paris 1951, no. 333.

⁷⁵ M. Litvine: Précis Élémentaire de Droit Aérien, Bruxelles 1953, no. 289-290.

⁷⁶ Salinas: La Regulacion jurídica del Transporte Aereo, Madrid 1953, p. 246 with note (328).

⁷⁷ A. Schweickhardt: Schweizerisches Lufttransportrecht, Zürich, Berlin-Köln 1954, p. 48.

⁷⁸ Perucchi: Danos en el transporte aereo internacional, Buenos Aires 1957, p. 71-74.

⁷⁹ Goedhuis 1933 p. 192; same author 1937 p. 236-237; same author 1943 p. 241-243.

⁸⁰ C. N. Shawcross and K. M. Beaumont: On Air Law, London 1951, (Second Edition) no. 390 note (c) and 411 note (c).

⁸¹ A. D. McNair: The Law of the Air, London 1953, (Second Edition by M. R. E. Kerr and R. A. MacGrindle) p. 197, cf. p. 208, 222.

⁸² G. Ripert in Journal du Droit International (Paris) 1930, p. 97.

- ⁸³ Maschino in *Droit Aérien* (Paris) 1930 p. 21.
- ⁸⁴ A. N. Sack in *Air Law Review* 1933 p. 368.
- ⁸⁵ G. W. Lupton Jr.: *Civil Aviation Law*, Chicago 1935, § 79.
- ⁸⁶ Schleicher and F. Reymann: *Recht der Luftfahrt*, Berlin 1937, p. 356.
- ⁸⁷ A. W. Knauth in *Journal of Air Law and Commerce* 1947 p. 45.
- ⁸⁸ N. H. Moller: *Law of Civil Aviation*, London 1936, p. 304.
- ⁸⁹ Koffka-Bodenstein-Koffka *op. cit.* p. 322: "... Der Luftfrachtführer muss ... beweisen, ... dass objektiv alles zur Verhütung des Schadens Erforderliche geschehen ist ..."
- ⁹⁰ See also Riese's criticism of Koffka-Bodenstein-Koffka, Riese *op. cit.* p. 455.
- ⁹¹ W. E. Astle: *Air Carriers' Cargo Liabilities and Immunities*, London 1958, p. 91.
- ⁹² *Rivista di Diritto Aeronautico* 1938 p. 141-150, see also R.G.D.A. 1939 p. 309-318 (French translation). The decision is dealing directly with the Italian Decree of September 28, 1933 no. 1733 Art. 36, but may be applied as well to the Warsaw Convention as the Decree reproduces the text of the Convention.
- ⁹³ See *supra* p. 7.
- ⁹⁴ Presumably in his report of 1925, see *supra* p. 7.
- ⁹⁵ The decision has never been published, but it is reproduced—in extracts—by Lemoine *op. cit.* no. 825 note (2). See also Part II of this study (Court Decisions).
- ⁹⁶ *Rivista di Diritto Aeronautico* 1938, p. 52-64.
- ⁹⁷ The judgment was reversed on appeal, see Part II of this study, but the question under consideration was not discussed then. However, the views can probably be considered to have been overruled by the above mentioned judgment given by Corte de Cassazione, March 31, 1938.
- ⁹⁸ U.S. Av. R. 1936 p. 184-250.
- ⁹⁹ *Ibid.* p. 230.
- ¹⁰⁰ U.S. Av. R. 1949 p. 65-71.
- ¹⁰¹ U.S. and C. Av. R. 1954 p. 221-228.
- ¹⁰² U.S. and C. Av. R. 1957 p. 431-435.
- ¹⁰³ See further Part II of this study (Court Decisions).
- ¹⁰⁴ See for example CITEJA Doc. 495, *Compte Rendu de Réunion de la Deuxième Commission*, Cairo, 1946, p. 51-59; ICAO Doc. 7229-LC/133, Eighth Session of the Legal Committee, Madrid 1951, p. 149-151; ICAO Doc. 7450-LC/136, Ninth Session of the Legal Committee, Rio de Janeiro 1953, p. 79-88; The Hague Conference 1955, p. 94-101.
- ¹⁰⁵ Lemoine *op. cit.* no. 819-821.
- ¹⁰⁶ *Ibid.* no. 819.
- ¹⁰⁷ See Paris Convention 1925 p. 55, and *infra* p. 15.
- ¹⁰⁸ In this connection Lemoine cites the (unpublished) case *Csillag vs. Air France*, see Part II of this study (Court Decisions).
- ¹⁰⁹ Müller: *Das Internationale Privatrecht der Luftfahrt*, Dortmund (Germany) 1932, p. 95.
- ¹¹⁰ Giannini in R.G.A. 1949 p. 342.
- ¹¹¹ Lacombe in R.D.A. 1949 p. 823.
- ¹¹² Picard *op. cit.* p. 154-155.
- ¹¹³ A. Lefebvre d'Ovidio and G. Pescatore: *Diritto della Navigazione*, Milano 1950, p. 277, who state briefly with respect to carriage of goods that damage resulting from an unknown cause is to be borne by the shipper. A similar opinion seems also indicated as far as passengers are concerned, see p. 251-252.
- ¹¹⁴ Chauveau *op. cit.* no. 331-341, especially no. 333.
- ¹¹⁵ J. A. Lena Paz: *Derecho Aeronautico*, Buenos Aires 1951, p. 214-215.
- ¹¹⁶ Rabut: *La Convention de Varsovie*, Paris 1952, p. 23-24.
- ¹¹⁷ Litvine *op. cit.* no. 292, cf. no. 288.
- ¹¹⁸ Ripert in *Revue Juridique Internationale de la Locomotion Aérienne*, (Paris), 1926 p. 7. Ripert was a member of the French delegation to the Paris Conference 1925 and to the Warsaw Conference 1929.
- ¹¹⁹ This seems to imply the understanding that all faults that are committed, or the effect of which has manifested itself, *after* the departure of the aircraft, are considered nautic faults, see further Part II of this study (concerning Art. 20 paragraph 2 of the Warsaw Convention).
- ¹²⁰ Ripert in R.G.D.A. 1932 p. 264-265.
- ¹²¹ Concerning the problem of unknown cause of damage in maritime law, see Ripert: *Droit Maritime*, 1952, no. 1812-8, see further Part II of this study (compensation with Maritime Law).

- ¹²² Goedhuis 1933 p. 173-195; same author 1937 p. 217-241; same author 1943 p. 240-251.
- ¹²³ Goedhuis 1933 p. 176-177; same author 1937 p. 221-222; same author 1943 p. 242, where it is said that originally the carrier's responsibility for his servants or agents was based on "culpa in eligendo."
- ¹²⁴ Goedhuis 1933 p. 173 and 176; same author 1937 p. 218 and 221; same author 1943 p. 241.
- ¹²⁵ See *infra* p. 16.
- ¹²⁶ See also Goedhuis 1933 p. 195; same author 1943 p. 245-246.
- ¹²⁷ Goedhuis 1937 p. 237.
- ¹²⁸ Ambrosini in *Rivista di Diritto Aeronautico* 1938 p. 167 f.
- ¹²⁹ *Ibid.* p. 236-238.
- ¹³⁰ Coquoz *op. cit.* p. 137.
- ¹³¹ J. van Houtte: *Le Responsabilité Civile dans les Transports Aériens intérieurs et internationaux*, Paris and Louvain 1940 no. 46.
- ¹³² R. Gay de Montellá: *Principios de Derecho Aeronáutico*, Buenos Aires 1950, p. 545-546.
- ¹³³ N. G. Sandoval: *El Contrato de Transporte Aereo*, Bogota 1957, p. 100.
- ¹³⁴ Salinas *op. cit.* p. 247-248.
- ¹³⁵ L. Tapia in *Studi in onore di Antonio Ambrosini*, Milano 1957, p. 113.
- ¹³⁶ Schweickhardt *op. cit.* p. 47-48.
- ¹³⁷ Riese *op. cit.* p. 454-461.
- ¹³⁸ See also Koffka-Bodenstein-Koffka *op. cit.* p. 325-326.
- ¹³⁹ See also Sullivan in *Journal of Air Law* 1936 p. 30.
- ¹⁴⁰ Koffka-Bodenstein-Koffka *op. cit.* p. 325-326.
- ¹⁴¹ Sullivan in *Journal of Air Law* 1936 p. 30.
- ¹⁴² Schleicher in *Archiv für Luftrecht (Germany)* 1939 p. 89 f.
- ¹⁴³ Oppikofer in *Zeitschrift für Schweizerisches Recht* 1946 p. 217a note 65.
- ¹⁴⁴ Sauveplanne in *Rechtskundige Opstellen aangeboden aan Prof Cleveringa*, Zwolle (the Netherlands) 1952, p. 376 f.
- ¹⁴⁵ Achtnich in *Z.f.L.* 1952 p. 340.
- ¹⁴⁶ Drion *op. cit.* no. 33 note 3.
- ¹⁴⁷ Abraham in *Z.f.L.* 1953 p. 85; same author in *Z.f.L.* 1955 p. 261; same author: *Der Luftbeförderungsvertrag*, Stuttgart (Germany) 1955, p. 60-63.
- ¹⁴⁸ The author refers to German maritime law, see also Part II of this study (compensation with Maritime Law).
- ¹⁴⁹ G. N. Calkins in *Journal of Air Law and Commerce* 1956 p. 256.
- ¹⁵⁰ Mid-air collision over the Grand Canyon, Arizona, on June 30, 1956, see Civil Aeronautics Board, Accident Investigation Report, ICAO Circular 54-AN/49, Aircraft Accident Digest No. 8, p. 95-111. With respect to the cause of the accident the following is stated in the report: "The probable cause of this mid-air collision was that the pilots did not see each other in time to avoid the collision. It is not possible to determine why the pilots did not see each other, but the evidence suggests that it resulted from any one or a combination of the following factors: (1) Intervening clouds reducing time for visual separation; (2) visual limitations due to cockpit visibility, and; (3) preoccupations with normal cockpit duties; (4) preoccupation with matters unrelated to cockpit duties such as attempting to provide the passengers with a more scenic view of the Grand Canyon area; (5) physiological limits to human vision reducing the time opportunity to see and avoid the other aircraft, or; (6) insufficiency of en-route air traffic advisory information due to inadequacy of facilities and lack of personnel in air traffic control."
- ¹⁵¹ J. L. A. Hernandez: *Regulacion Juridica del Transporte Aéreo Internacional*, Mexico D.F., 1957 p. 74-75.
- ¹⁵² Maschino in *Droit Aérien (Paris)* 1930 p. 20-21.
- ¹⁵³ Schleicher-Reymann *op. cit.* p. 356.
- ¹⁵⁴ Sune Wetter in *Journal of Air Law and Commerce* 1948 p. 5.
- ¹⁵⁵ J. L. Francais in *R.G.A.* 1954 p. 140.
- ¹⁵⁶ A. W. Knauth in *Journal of Air Law and Commerce* 1947 p. 44-45.
- ¹⁵⁷ See Paris Conference 1925 p. 77-82.
- ¹⁵⁸ *Ibid.* p. 79.
- ¹⁵⁹ *Ibid.* p. 55-56.
- ¹⁶⁰ See *supra* p. 12.
- ¹⁶¹ See *supra* p. 13.
- ¹⁶² See p. 15.
- ¹⁶³ Chapter III (the liability chapter) of the draft convention submitted to the Third Session of CITEJA has been reproduced in *Journal of Air Law and Commerce* 1959 p. 221 f (G. N. Calkins: "The Cause of Action Under the Warsaw Convention").

¹⁶⁴ See Rapport présenté au CITEJA au nom de la deuxième Commission par M. Henry de Vos, May 1928, CITEJA, Third Session, May 1928, Madrid, Compte Rendu, p. 103-104, cf. p. 47.

¹⁶⁵ The German proposal was first made to the Second Commission of CITEJA in its meeting in Paris, March 1928, see CITEJA, Second Commission, Compte Rendu, March 1928, Paris, p. 38-41.

¹⁶⁶ A provision to this effect had been included in the "Avant-Projet de Convention sur la responsabilité du transporteur dans les transports internationaux par aéronefs et la lettre de transport aérien (texte modifié conformément aux délibérations de la Deuxième Commission (de CITEJA), Paris, March 21-22, 1928," see this document p. 12.

¹⁶⁷ See CITEJA, Third Session, May 1928, Madrid, Compte Rendu p. 125. See also Warsaw Conference 1929 p. 172.

¹⁶⁸ See Warsaw Conference 1929 p. 159-166.

¹⁶⁹ *Ibid.* p. 164. See also de Vos' oral presentation of the problems *ibid.* p. 15-16.

¹⁷⁰ *Ibid.* p. 25-37.

¹⁷¹ Concerning the discussions on the carrier's liability for latent defects, see G. N. Calkins in Journal of Air Law and Commerce 1959 p. 234-236.

¹⁷² See Warsaw Conference 1929 p. 36.

¹⁷³ See for example the French Code Civil Art. 1148, cf. Art. 1147, and the Italian Codice Commercio Art. 400. See also the Spanish Código civil Art. 1105, cf. Salina *op. cit.* p. 244 note (323).

¹⁷⁴ See for example *Ripert* in R.G.D.A. 1932 p. 264-265; *Mantle* in R.G.D.A. 1936 p. 492-493; *Ambrosini* in Rivista di Diritto Aeronautico 1938 p. 188; *Coquoz op. cit.* p. 136; *Agro* in Rivista di Diritto Aeronautico 1940-41 p. 72; *Rabut*: La Convention de Varsovie, Paris 1952 p. 23; *C. S. de Lacerda*: Curso de Direito comercial marítimo e aeronautico, Third Edition, Rio de Janeiro 1957 p. 512. Compare *Goedhuis* 1933 p. 192-193. See also the Italian case *Palleroni vs. S.A. di Navigazione Aeria*, *supra* p. 10.

¹⁷⁵ See Warsaw Conference 1929 p. 112-113.

¹⁷⁶ See *supra* note 50.

¹⁷⁷ See the Danish Act § 20 subsection 1; the Norwegian Act § 6 subsection 1; the Swedish Act 20 § 1 subsection; the Finnish Act 20 § 1 subsection.

¹⁷⁸ Compare the almost similar wording of the Dutch proposal during the Rio de Janeiro discussions and The Hague Conference, *infra* p. 20.

¹⁷⁹ See Bill for Aviation Act, March 5, 1959, The Ministry of Public Works, Copenhagen, Chapter 9 § 20.

¹⁸⁰ Loi No. 57-259 du 2 mars 1957 sur la responsabilité du transporteur au cas de transport aérien.

¹⁸¹ See *supra* note 33.

¹⁸² See R.G.A. 1957 p. 239.

¹⁸³ This is the Warsaw limit as amended by The Hague Protocol (250,000 Poincaré francs, about 16,600 U.S. dollars).

¹⁸⁴ See Commonwealth of Australia, Parliamentary Debates, Twenty-Third Parliament, First Session, 1959 (First Period), Senate, February 25, 1959, p. 188-189.

¹⁸⁵ *Ibid.* p. 320 (March 11, 1959, Senator McKenna); p. 333 (Senator Vincent).

¹⁸⁶ *Ibid.* p. 339 (Senator Hannan).

¹⁸⁷ *Ibid.* p. 402 (March 17, 1959).

¹⁸⁸ See Report of the American Delegation on Sessions of the First, Second and Third Commissions of the International Technical Committee of Aerial Legal Experts (CITEJA), Paris, January 23-24, 1939, (Report submitted February 11, 1939), Annex "F" p. 39.

¹⁸⁹ *Ibid.* p. 40-41.

¹⁹⁰ The questionnaire has been reproduced in Réponses des Experts Français au questionnaire présenté par M. Beaumont, et concernant la Revision de la Convention de Varsovie, CITEJA, Deuxième Commission, Doc. 444 (1946).

¹⁹¹ CITEJA, Deuxième Commission, Doc. 442 (1946), Réponse de M. E. Georgiades, Expert Hellénique, au questionnaire de M. Beaumont.

¹⁹² CITEJA, Deuxième Commission, Doc. 446 (1946), Réponse de M. le Dr. Beheiri, Expert Egyptien, au questionnaire présenté par M. Beaumont.

¹⁹³ CITEJA, Deuxième Commission, Doc. 453 (1946), Réponse de la Délégation Néerlandaise au questionnaire présenté par M. Beaumont.

¹⁹⁴ International Air Transport Association.

¹⁹⁵ CITEJA, Deuxième Commission, Doc. 455 (1946), Réponse du Délégué Norvégien (Judge E. Alten) au questionnaire de M. Beaumont.

¹⁹⁶ CITEJA, Compte Rendu des Réunions de la Deuxième Commission, le Caire, November 1946, Doc. 495 p. 56-59.

¹⁹⁷ See ICAO Doc. 7229-LC/133, Eighth Session of the Legal Committee, Madrid 1951, p. 151.

¹⁹⁸ See ICAO Doc. 7450-LC/136, Ninth Session of the Legal Committee, Rio de Janeiro 1953 p. 80, and the following discussion p. 80-88.

¹⁹⁹ *Ibid.* p. 81.

²⁰⁰ *Ibid.* p. 88.

²⁰¹ See The Hague Conference 1955 p. 94-95, 101 and 105. In its final form (the combined Dutch-Australian-Norwegian proposal, voted upon as an Australian proposal) the proposal ran as follows: "The carrier is not liable if he proves that the damage was not caused by negligence of himself or his servants and agents," see The Hague Conference 1955 p. 101.

²⁰² *Ibid.* p. 96 (Mr. Calkins); see also Ninth Session of the Legal Committee, Rio de Janeiro 1953 p. 86. See *supra* p. 9.

²⁰³ See The Hague Conference 1955 p. 97-98 (Mr. Riese). See *supra* p. 30.

²⁰⁴ *Ibid.* p. 99 (Mr. Beaumont).

²⁰⁵ Thus the delegates from Portugal, Israel, Greece and the U.S.S.R., see *ibid.* p. 96-101.

²⁰⁶ *Ibid.* p. 95 (Prof. Ambrosini); compare, however, Ninth Session of the Legal Committee, Rio de Janeiro 1953 p. 84, where another understanding of the Dutch proposal seems to have been expressed.

²⁰⁷ The Hague Conference 1955 p. 100; compare, however, *ibid.* p. 177 where an apparently opposite view is maintained. See also Ninth Session of the Legal Committee, Rio de Janeiro 1953 p. 82.